

MEETING LOG

UPHOLSTERED FURNITURE

CPSC 6 (b)(7) Cleared
No Mfrs/Privlbrs or
Products Identified
Excepted
Firms Notified
Comments Processed
CPSC/OFFICE OF
THE SECRETARY
OCT 20 P 2:41

Meeting Between: CPSC staff and representatives of the Fire Retardant Chemicals Association (FRCA)

Date of Meeting: October 6, 1998

Site of Meeting: Doubletree Islander Hotel, Newport, RI

Meeting Topic: FRCA Conference on Flame Retardant Polymeric

Log Entry By: Dale Ray, *[Signature]* Mgr., Upholstered Furniture

Participants: FRCA: Russell Kidder, Executive VP, and about 50 representatives of various FRCA member firms

Other: Representatives of FR chemical user industries

CPSC: Dale Ray, EC

Summary:

FRCA's Fall 1998 program on Flame Retardant Polymeric featured FRCA technical reports (one of which deals with upholstered furniture) and a number of technical presentations on issues related to fire retardant (FR) chemicals and fire safety. One segment of the program dealt specifically with FR chemicals in upholstery applications. A copy of the conference program is attached.

Robert Winklejohn, Great Lakes Chemical Corp., representing the upholstered furniture committee, provided an update on regulatory and legislative issues related to CPSC's activities. A copy of the paper he presented (prepared by Richard Rose, also of Great Lakes) is also attached. Mr. Winklejohn's talk covered the general history of FRCA's involvement and cooperation with CPSC, including the committee's response to the October 1997 briefing package (e.g., toxicity data and an application "grid" of uses), and their presentation at the May 5-6, 1998 CPSC public hearing on FR chemicals. Mr. Winklejohn's concluded that existing data showed that the likely toxic risk to consumers associated with FR use in upholstery fabrics is negligible, and that there should be little concern about the potential widespread use of such FRs in furniture.

A number of questions about CPSC activities were asked by various attendees. Mr. Ray addressed most of these questions and gave a brief talk elaborating on several of Mr. Winklejohn's points. Mr. Ray also presented the latest available FY99 appropriations bill language regarding, among other things, a

possible CPSC contract with the National Academy of Sciences to study FR chemical toxic risks. Mr. Ray reiterated that the CPSC staff takes concerns about FR chemical toxicity seriously, and intends to perform a thorough evaluation of potential toxicologic risks to consumers, workers and the environment.

Mr. Winklejohn and Larry Bradford (of Akzo-Nobel Chemicals, Inc.) stated their firms' desire to run additional tests on behalf of the FRCA, using CPSC's test method and apparatus. Such tests have already been conducted by FRCA, and are continuing with other interested industry groups, under an agreement to allow outside parties to use CPSC's equipment. Mr. Ray noted this request; arrangements for these tests are being made.

At this conference, Mr. Ray also conferred with Russell Kidder (FRCA Executive Director) and other FRCA members to gather information on the manufacturers of the various FR chemicals that might be suitable for use in upholstery fabrics. This information supplements that provided by the FRCA in their submission pursuant to the May 1998 public hearing.

Attachments (conference program and talk on regulatory and legislative action on upholstered furniture)

THE FIRE RETARDANT CHEMICALS ASSOCIATION

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Frank Moleky
J. M. Huber Corporation

Michael Breza
Hanna Engineered Materials

SPOUSE'S PROGRAM

SUNDAY, OCTOBER 4, 1998

7:00-8:00 P.M. Welcoming Reception

MONDAY, OCTOBER 5, 1998

8:00 A.M. Continental Breakfast
9:00 A.M.-1:00 P.M. Tour
6:30-7:30 P.M. Industry Sponsored Reception

TUESDAY, OCTOBER 6, 1998

2:25-5:00 P.M. Afternoon Activities—
Additional Charge
6:30 P.M. Clam bake

SPOUSE'S PROGRAM BY SPOUSE REGISTRATION ONLY

SCHEDULE OF EVENTS

SUNDAY, OCTOBER 4, 1998

3:45-6:45 P.M. Registration
(Main Lobby)
7:00-8:00 P.M. Welcoming Reception
(Pavilion)

MONDAY, OCTOBER 5, 1998

7:30 A.M. Coffee & Registration
(Ballroom Foyer)
8:00 A.M. Technical Session
(Ballroom A)
12:00 NOON Luncheon
(Ballroom B)
1:30 P.M. Technical Session
(Ballroom A)
6:30-7:30 P.M. Industry Sponsored Reception
(Brenton Hall)
(Product Information Tables)

TUESDAY, OCTOBER 6, 1998

7:30 A.M. Coffee & Registration
(Ballroom Foyer)
8:00 A.M. Technical Session & Focus
Groups
(Ballroom A)
11:15 A.M. Adjourn
11:15 A.M.-4:30 P.M. Electrical/Electronic
Committee
Building Products Committee
Clam bake
(Pavilion)

WEDNESDAY, OCTOBER 7, 1998

7:30 A.M. Coffee
(Ballroom Foyer)
8:00 A.M. Technical Session
(Ballroom A)
11:00 A.M. Adjourn

FINAL PROGRAM

FLAME RETARDANT POLYMERIC— ELECTRICAL/ELECTRONIC APPLICATIONS

The Fire Retardant Chemicals Association

October 4-7, 1998

DOUBLE TREE ISLANDER HOTEL
NEWPORT, RHODE ISLAND



MONDAY MORNING OCTOBER 5, 1998

8:15 A.M.—12:00 NOON

WELCOMING REMARKS:

FRCA PRESIDENT
Joseph M. Lesniewski

TEST METHOD DEVELOPMENT

MODERATOR—E. Papazoglou
FMC Corp.

FLAME RETARDANT POLYURETHANES

G. Nelson, C. Jayakody
Florida Institute of Technology

TECHNOLOGY CHANGES IN METAL HYDRATE FLAME RETARDANTS

J. Innes, A. Ianes
Flame Retardants Associates, Inc.

COMPOUNDING OF HFFR THERMOPLASTICS: TYPICAL EXAMPLES AND RECOMMENDATIONS

R. Herbiet
Martinswerk, GmbH

A NEW METHOD FOR MEASURING SMOKE YIELD AND SMOKE PRODUCTION FROM FIRE TESTS

G. W. Mulholland, D. A. Shear
Building and Fire Research Laboratory—NIST

THE RESEARCH ADVISORY COUNCIL ON DECOMPOSITION AND OFFGAS PRODUCTS AND NEW PLENUM FIRE SAFETY PROJECT WILL BE DISCUSSED

R. Mulhaupt, J. Beitel
National Fire Protection Research Foundation

MONDAY, OCTOBER 5, 1998

12:00 NOON LUNCHEON SPEAKER
Mike Bridges—ITHF
"Activities of the International Tennis
Hall of Fame"

MONDAY AFTERNOON OCTOBER 5, 1998

1:30 P.M.—5:00 P.M.

UL ACTIVITIES AND INDUSTRY COMMENTS

MODERATOR—R. Termini
Albemarle

UL LARGE AND SMALL FLAME TESTING OF WIRE AND CABLE

S. Galan, T. Guida
Underwriters Laboratories

FIRE TEST TO ASSESS FLAME SPREAD AND SMOKE OBSCURATION OF PLENUM CABLE: BACKGROUND AND ISSUES

M. M. Hirschler
GBH International

INDUSTRY CONCERNS WITH THE UL CHANGES AND PROPOSED CHANGES TO UL 910, TEST FOR PLENUM CABLE

J. Moritz
Gitto Corp.

UL TESTS FOR SMALL APPLIANCES—UL 746 AND FUTURE OPTIONS

G. Fechtmann
Underwriters Laboratories

THE SMOKE TOXICITY COMPONENT OF THE ENGINEERING ANALYSIS OF HAZARDS TO LIFE SAFETY IN FIRES: ISO CD 13571—A NEW FIRE SAFETY TOOL

G. E. Hartzell
Hartzell Consulting Inc.

TUESDAY MORNING OCTOBER 6, 1998

8:00 A.M.—11:15 A.M.

UPHOLSTERED FURNITURE AND COMMERCIAL MARINE FIRE SAFETY

MODERATOR—S. Johnson
Lonza

FIRE PROTECTION TECHNIQUES FOR COMMERCIAL VESSELS

N. Schultz
PTEC Laboratories, Inc.

R. Asro
UCSC

REGULATORY AND LEGISLATIVE ACTION ON FIRE SAFETY OF UPHOLSTERED FURNITURE

R. Rose
Great Lakes Chemical Corp.

FOCUS GROUP (FRCA LONG RANGE PLANNING) DISCUSSION OF RECOMMENDATIONS FOR FUTURE FRCA ACTIVITIES

R. Crowell
Akzo

FRCA MARKET ORIENTED COMMITTEE MEETINGS

11:15 A.M. Electrical/Electronic Committee
M. Breza
Hanna Engineered Materials

2:15 P.M. Building Products Committee
J. Bryner
Solutia

WEDNESDAY MORNING OCTOBER 7, 1998

8:00 A.M.—11:30 A.M.

WIRE AND CABLE APPLICATIONS

MODERATOR—R. Markezich
Oxy-Laurel

NEW DEVELOPMENTS IN FLAME RETARDED PVC WIRE AND CABLE FORMULATIONS

S. Munro
FMC Corporation (UK) Ltd.

RESEARCH ON INCREASED FIRE SAFETY BY USING FIRE RETARDANTS IN ELECTRICAL APPLICATIONS

A. Tewatson
Factory Mutual

EFFECT OF FLAME RETARDANT MATERIALS ON OXIDATION OF HALOGEN FREE FLAME RETARDANT POLYOLEFIN FOR OPTICAL CABLE JACKETING

Hwa Joon Lim
LG Cable & Machinery Ltd.

FLAME RETARDED PVC WITH SUPERIOR LOW TEMPERATURE BRITTLENESS FROM A NEW BROMINATED PLASTICIZER

W. R. Fielding
Great Lakes Chemical Corp.

FLAME RETARDANT LOW SMOKE PVC FOR WIRE AND CABLE

J. Kotak
SPE Polysides Section

REGULATORY AND LEGISLATIVE ACTION ON FIRE SAFETY OF UPHOLSTERED FURNITURE (REVISED MID-AUGUST 1998)

**R. S. ROSE
GREAT LAKES CHEMICAL CORPORATION
WEST LAFAYETTE, INDIANA USA**

BACKGROUND

The U.S. Consumer Product Safety Commission (CPSC) began work in 1994 on upholstered furniture flammability in response to a petition by the National Association of State Fire Marshals. In October 1997 a briefing package addressing regulatory options was issued. The briefing package proposes an open flame ignition test for cover fabric, deferring action on cigarette ignition, and a five month delay to allow study of health effects of fire retardant treatments.

The CPSC Commissioners agreed to a five month delay to study flame retardant health effects beginning in early March 1998. The CPSC asked the Fire Retardant Chemicals Association (FRCA) to provide information. A public hearing at the CPSC on the subject of flame retardant health effects was also announced.

HAZARDS ASSOCIATED WITH FLAME RETARDANTS

The FRCA upholstered furniture committee responded to the CPSC request. A poll of member and non-member fire retardant chemical producers resulted in a list of seven major chemistries (attachment). Products which have been widely used to fire retard upholstery fabric and those it is believed would see wide usage meeting the proposed standard, if adopted, are identified.

Written information was provided to the CPSC. Individuals from FRCA member companies testified at a public hearing at the CPSC May 5 and 6. FRCA's approach involved focusing on three aspects of hazard potential, exposure, bioavailability, and toxicity.

Potential for exposure is dictated by the way the fire retardant chemical is applied. It was shown that most upholstery fabrics are likely to be backcoated or utilize reactive fire retardants. Either approach results in negligible risk of exposure.

It was also shown that a wide range of fire retardants is available for each upholstery fabric type. Grids containing fire retardant options for various fibers and fiber blends was provided. Textile and furniture producers are able to choose, providing the opportunity for product stewardship. Choices include products that have been used successfully to fire retard automotive upholstery for over two decades.

Large amounts of information were also provided pertaining to the bioavailability and toxicity of fire retardants likely to be used. Some have very low bioavailability. The majority have a sufficiently low order of toxicity to be of little concern.

Review of the combination of typically negligible exposure and low bioavailability or toxicity resulted in the realization that textile and furniture manufacturers, with a wide array of fire retardant choices, have little to be concerned about.

OPEN FLAME TEST

The CPSC concluded that cover fabrics are mainly responsible for the response of upholstered furniture to small ignition sources. The open flame test proposed by the CPSC does not address filling materials used in upholstered furniture. This contrasts with two existing small scale furniture flammability standards, California Bulletin 117 and British Standard 5852. Both these standards test the response of filling materials to an open flame.

A number of members of the FRCA Upholstered Furniture Committee as well as industry experts have questioned the wisdom of excluding a filling test. It has been agreed that a group within the FRCA committee will coordinate testing of filling materials using a small open flame. A test fixture has been made available by the CPSC for this purpose. Test results and recommendations based upon these results will be shared with the CPSC.

LEGISLATIVE ACTIVITY

There is continued opposition to a flammability standard for upholstered furniture. The successful defense of fire retardants against health effect concerns at CPSC has forced elements of the textile and furniture industries to seek congressional help.

Language was added to a House of Representatives appropriations bill which would prevent the CPSC from issuing an upholstered furniture flammability rule until outside scientists thoroughly study toxicity of fire retardant chemicals. A congressman from a district having many furniture manufacturers inserted the language.

Both the House Committee overseeing the CPSC and the White House view this action as an attack on the autonomy of the CPSC. A compromise was reached which would effectively delay any rulemaking by the CPSC for a minimum of fifteen months.

The appropriations bill must be passed by both houses of congress. A separate Senate version does not contain constraints on the CPSC's rulemaking. As of this writing (mid-August 1998) it appears a conference committee will resolve the issue in mid September.

CONCLUSION

Despite all the activity to date, the timing and even the form of any ruling by the CPSC on fire safety of upholstered furniture remains uncertain. It now appears that a congressional compromise could delay rulemaking fifteen months (until at least January 2000). There is also the question of the effect any new fire testing data might have upon modification of the existing fabric flammability test. Addition of a filling standard would result in a CPSC fire safety standard more in line with existing California and British protocols.

Attachment

FR PRODUCT CHEMISTRIES

A. Antimony Compounds

1. antimony trioxide
2. others

B. Boron Compounds

1. zinc borate
2. others

C. Bromine Compounds

1. decabromodiphenyl oxide
2. hexabromocyclododecane
3. others

D. Halogenated Compounds

1. Halogenated Phosphorus Compounds

- a. TCPP
- b. TDCP
- c. others

2. Halogenated Olefins and Paraffins

- a. straight chain α -olefin with Br/Cl on double bond
- b. liquid paraffin (40-70% Cl)
- c. resinous paraffin (>70% Cl)

E. Hydrated Minerals

1. alumina trihydrate
2. magnesium hydroxide

F.

Phosphorus Compounds

1. aromatic phosphate plasticizers
 - a. isopropylated triphenyl phosphate
 - b. iso-decyl diphenyl phosphate
 - c. 2-ethyl hexyl diphenyl phosphate
 - d. t-butylated triphenyl phosphate
 - e. tricresyl phosphate
2. ammonium polyphosphate
3. organic phosphonates
 - a. cyclic phosphonate esters
 - b. diethyl bis(hydroxymethyl)aminomethyl phosphonate
 - c. phosphonic acid, methyl-dimethyl ester polymer
4. terakis hydroxymethyl phosphonium salts (THPX)
 - a. THPC
 - b. THPS
5. phosphonic acid, [3-(hydroxymethyl)amino]-3-oxypropyl-dimethyl ester

G.

Calcium and Zinc Molybdates